

REMARKS/ARGUMENTS

Claims 1-20 remain in this application. Claims 1-5, 7-9, 11, 12, 14, and 15-18 stand rejected. Claims 6, 10, 13, 19, and 20 have been objected to as being dependent upon a rejected base claim, but the Examiner has indicated that these claims would be allowable if rewritten in independent form.

Claims 14 and 19 have been objected to as containing informalities. Claims 14 and 19 have been amended herein to correct the informalities, as per the Examiner's suggestions. None of these amendments is believed to add new matter.

1. Objections to the Specification

The Examiner objects to paragraph [0016] because he believes the phrase "is shielded 106, 108" is an incomplete recitation. The Examiner has further suggested that Applicants amendment paragraph [0016] to state, "[a]s defined herein, a quasi-coax transmission line 100 comprises a conductor 104, the cross-section of which is shielded ~~106, 108~~ (e.g., by shields 106, 108) in a non-symmetrical fashion." Applicants have amended paragraph [0016] accordingly for the Examiner's convenience. Applicants believe their amended paragraph [0016] provides the same disclosure as their original paragraph [0016], and does not introduce new matter.

The Examiner objects to paragraph [0025] because he believes phrases such as "deposited 902" should be rewritten as "deposited by step 902." Applicants have amended paragraph [0025] accordingly for the Examiner's convenience. Applicants believe their amended paragraph [0025] provides the same disclosure as original paragraph [0025], and does not introduce new matter.

The Examiner also objects to the specification because, "the following reference labels need description relative to the corresponding figure: fig. 4 (218); fig. 8, all reference labels except (700, 702, 704)." The Examiner has suggested that Applicants "provide a statement indicating that like reference numbers in different drawing figures refer to the same element/feature and may not be described in detail

for all drawing figures.” In response, Applicants have added new paragraph [0015.1] to incorporate the Examiner’s suggested language. The recitations in this added paragraph [0015.1] are not substantive, and it is believed that this paragraph does not introduce new matter.

All of the above amendments to the specification are believed to be clerical in nature, and none are believed to add new matter.

2. Objections to the Claims

The Examiner objects to claim 14 because he believes “respective” should precede “thickfilms.” Applicants have amended claim 14 accordingly to incorporate the Examiner’s suggested language.

The Examiner also objects to claim 19 because he believes “respective” should precede “mounds.” Applicants have amended claim 19 accordingly to incorporate the Examiner’s suggested language.

The above amendments to the claims are believed to be clerical in nature, and none are believed to add new matter.

3. Rejection of Claims 1, 2, 7, 11, 12, 14, and 15 Under 35 USC 103(a)

Claims 1, 2, 7, 11, 12, 14, and 15 stand rejected under 35 USC 103(a) as being unpatentable over either Arledge et al. (U.S. Pat. No. 6,000,120; hereinafter “Arledge”) or Shimada et al. (U.S. Pat. No. 6,353,189; hereinafter “Shimada”) in view of Kobayashi (U.S. Pat. No. 5,357,138).

The Examiner reasserts that:

. . . Arledge et al and Shimada et al (figs. 9-13) each pertain to shielded coaxial line structures comprising: . . . a dielectric layer (312, in Arledge et al; 33 in Shimada et al). . . ; a dielectric mound or layer (342 in Arledge et al; 34 in Shimada et al); and an upper shielding layer (382) in Arledge et al; 36 in Shimada et al) deposited over the dielectric mound. . . However, each primary reference differs from the claimed invention in that plural shielded coaxial arrangements are not disclosed.

Kobayashi discloses plural shielded coaxial wiring patterns in a multi-layer structure of the type analogous to those in Arledge et al or Shimada et al.

Accordingly, it would have been obvious to have modified the shielded coaxial structures in either Arledge et al or Shimada et al to have respectively included a plurality of such shield [sic] coaxial structures in view of the exemplary teaching thereof by Kobayashi. . .

5/10/2005 Office Action, pp. 4-5 and 11/1/05 Office Action, pp.3-4

Although the Examiner admits that Arledge and Shimada fail to teach “plural shielded coaxial arrangements”, the Examiner still asserts that each teaches “a dielectric mound or layer”. Applicants first reiterate their previous argument that a plurality of “dielectric mounds” is not equivalent to a “dielectric layer”.

With respect to the failure of Arledge and Shimada to teach “plural shielded coaxial arrangements”, the Examiner now asserts, in part, that:

It should be noted that both Arledge and Shimada et al pertain to printed circuit boards (PCBs), which are in a “high density” configuration. Accordingly, one of ordinary skill in the art recognizes that in a “high density” environment, many electrical/electronic components are disposed on a PCB and thus necessarily need many replica transmission lines of the type depicted in the corresponding reference. In other words, to have a “high density” of electrical/electronic components inherently requires plural shielded transmission lines to connect such components. Accordingly, the “high density” nature of the PCBs in either Arledge et al or Shimada et al makes the PCBs of each reference capable of supporting more than the single shielded transmission line depicted in the corresponding reference.

11/1/05 Office Action, pp.5-6

Applicants disagree. While PCBs may have a high density configuration, this does not make it obvious to replicate the apparatus of Applicants’ claim 1 to form such a high density configuration using the method of Applicants’ claim 15. As one of ordinary skill in the art recognizes, high density configurations on PCBs may be implemented in a variety of different ways. Accordingly, a high density configuration

of ‘shielded transmission lines’ on a PCB could be implemented in any number of ways. However, neither Arledge nor Shimada disclose the implementation taught in Applicants’ claims 1 and 15.

With respect to Arledge, Applicants note that Arledge discloses only a single conductor 332 sandwiched between two dielectrics 312, 342 (see FIG. 3). In light of Kobayashi’s teachings, applicants believe that, even if one of ordinary skill in the art *might* have been motivated to replicate the formation of Arledge’s dielectric/conductor unit 312, 332, 342 multiple times on a single substrate, there is absolutely no teaching within Arledge or Kobayashi to 1) extend the dielectric 312 of Arledge so that it is capable of supporting multiple conductors 332, or 2) replace *only the lower ones* of Kobayashi’s dielectrics mounds 3 with a single “layer of dielectric”, while still maintaining Kobayashi’s upper dielectric mounds 3.

Similarly to Arledge, Shimada discloses only a single conductor 31 sandwiched between two dielectrics 33, 34 (see FIG. 9). In light of Kobayashi’s teachings, applicants believe that, even if one of ordinary skill in the art *might* have been motivated to replicate the formation of Shimada’s dielectric/conductor unit 33, 31, 34 multiple times on a single substrate, there is absolutely no teaching within Shimada or Kobayashi to 1) extend the dielectric 33 of Shimada so that it is capable of supporting multiple conductors 31, or 2) replace *only the lower ones* of Kobayashi’s dielectrics mounds 3 with a single “layer of dielectric”, while still maintaining Kobayashi’s upper dielectric mounds 3.

While Kobayashi does teach an arrangement (in FIG. 3) wherein a plurality of conductors 1 are sandwiched between two layers of dielectric 3, Kobayashi fails to suggest that this arrangement might be modified to replace *only the top layer* of dielectric with a plurality of dielectric mounds, as taught by Applicants’ claims 1 and 15. The Examiner has still failed to show any motivation or incentive within Kobayashi to combine Kobayashi with the teachings of Arledge or Shimada to form the apparatus of Applicants’ claim 1.

Claims 1, 2, 7, 11, 12, 14 and 15 are believed to be allowable over the teachings of Arledge, Shimada and Kobayashi for at least the above reasons.

4. Rejection of Claims 3-5, 8, and 16-18 under 35 USC 103(a)

Claims 3-5, 8, and 16-18 stand rejected under 35 USC 103(a) as being unpatentable over Shimada et al. (U.S. Pat. No. 6,353,189; hereinafter “Shimada”) in view of Kobayashi (U.S. Pat. No. 5,357,138).

Applicants assert that claims 3-5, 8 and 16-18 are allowable at least for the reason that they depend from either claim 1 or claim 15, which claims are believed to be allowable over the combined teachings of Shimada and Kobayashi for the reasons presented in Section 3 of these Remarks/Arguments, *supra*.

5. Rejection of Claim 9 under 35 USC 103(a)

Claim 9 stands rejected under 35 USC 103(a) as being unpatentable over the above rejection applied to claim 1 [either Arledge et al. (U.S. Pat. No. 6,000,120; hereinafter “Arledge”) or Shimada et al. (U.S. Pat. No. 6,353,189; hereinafter “Shimada”) in view of Kobayashi (U.S. Pat. No. 5,357,138)] and further in view of Dove et al. (U.S. Pat. No. 6,457,979; hereinafter “Dove”).

Applicants assert that Dove does not teach that which applicants have already argued is missing from the combination of Shimada and Kobayashi. As a result, applicants believe that claim 9 is allowable at least for the reason that it depends from claim 1, which is believed to be allowable over the combined teachings of Shimada and Kobayashi for the reasons presented in Section 3 of these Remarks/Arguments, *supra*.

Appl. No. 10/762,143
Response dated January 3, 2006
Reply to Office Action of November 1, 2005

5. Conclusion

In light of the above Remarks, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,
DAHL & OSTERLOTH, L.L.P.

By:



Gregory W. Osterloth
Reg. No. 36,232
Tel: (303) 291-3200